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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,846	03/11/2004	Yoshikazu Yamamoto	YAMAP0906US	7118
43076	7590	11/10/2004	EXAMINER	
MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR CLEVELAND, OH 44115-2191			JEANGLAUDE, JEAN BRUNER	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,846

Applicant(s)

YAMAMOTO ET AL.

Examiner

Jean B Jeanglaude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3-11-04 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-11-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 15 - 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 15, it is unclear in the claim what "a first method", "a second method" are referring to as indicated on page 61, lines 3, 8, 14, 19, 28, 30. Also, it is not suggested to incorporate a method claim in an apparatus claim.

4. Claim 23 is a method claim of the apparatus claimed in claim 15 incorporates the same language of claim 15, such as "a first method", "a second method". It is unclear what these methods are.

5. Claims 16 - 22, 23 - 30 are automatically rejected under 112, 2nd paragraph due to the fact that they depend on claims 15 and 23 respectively which are independent claims of which claims 16 - 30 depend on as indicated in the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 6, 8 - 13, rejected under 35 U.S.C. 102(b) as being anticipated by Kunisa et al. (US patent Number 6,141,787).

8. Regarding claims 1, and 8, Kunisa et al discloses an information encoding apparatus and method (fig. 5) for encoding N pieces of information, the information encoding apparatus comprising: a scrambling pattern generation section for generating M scrambling patterns ($N > M > 1$: where M and N are each an integer) (note block 20 creates scrambling pattern in figs. 5, 7 - 9); a scrambled information generation section (20) for applying, to each of the N pieces of information, one corresponding scrambling pattern among the M scrambling patterns so as to generate N pieces of scrambled information (figs. 5, 7 - 9) ; and an encoded information generation section (33, fig. 5) for supplying the N pieces of scrambled information with N parities, respectively, so as to generate encoded information (col 8, lines 4 – 7); wherein each of at least one of the M scrambling patterns is applied to two or more of the N pieces of information (figs. 5, 7 -9).

9. Regarding claims 2 and 9, Kunisa et al. discloses an information encoding apparatus and method (fig. 5) wherein the M is a divisor of N, and the scrambled information generation section (20, fig. 5) applies one corresponding scrambling pattern among the M scrambling patterns to each of the N pieces of information such that the M scrambling patterns are repeated N/M times so as to generate the N pieces of scrambled information (figs. 5, 7 - 9).

10. Regarding claims 3, 10, Kunisa et al. discloses an information encoding apparatus and method (figs. 5, 6) further comprising a first storage section (251, fig. 6)

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for storing the N pieces of scrambled information and the N parities in order to supply the N pieces of scrambled information with the N parities (col 9, lines 39 – 45).

11. Regarding claims 4 and 11, Kunisa et al. discloses an information encoding apparatus (figs. 5, 6, 10) further comprising a second storage (150, fig. 10) section for storing the M scrambling patterns.

12. Regarding claims 5, and 12 Kunisa et al. discloses an information encoding apparatus (figs. 5, 6, 10) wherein the encoded information generation section is a division circuit (col 4, lines 51 – 67).

13. Regarding claims 6, 13, Kunisa et al. discloses an information encoding apparatus and method (figs. 5, 6, 10) wherein the encoded information generation section generates the N parities by erasure correction (col 4, lines 60 – 64; col 5, lines 30 - 37).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunisa et al. (US patent Number 6,141,787).

16. Regarding claims 7, 14, Kunisa et al. discloses all the limitations as discussed above except an information encoding apparatus and method wherein N is 32 and M is 1. However, as one may notice in Kunisa, patterns are created by the pattern

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generating means 20 and the information received by the system has an unknown capacity. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that Kunisa et al. would perform at least the same function as the claim invention and would achieve the same end result as encoding a plurality of pieces of information.

Allowable Subject Matter

17. Claims 15 – 30 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Kubota et al. (US patent Number 5,499,148) discloses a digital video tape reproducing apparatus compatible with tapes having a track width different from a rotary magnetic head width.

20. Osawa et al. (US patent Number 5,930,367) discloses an apparatus for recording/reproducing or transmitting/receiving signal data having a portion of an error correction code replaced with other information and methods thereof.

21. Sako et al. (US patent Number 6,005,839) discloses a data transmitting method, data recording apparatus, data record medium and data reproducing apparatus.

22. Lee et al. (US patent Number 6,377,643) discloses an apparatus for detecting a synchronizing signal in a digital data record/replay device.

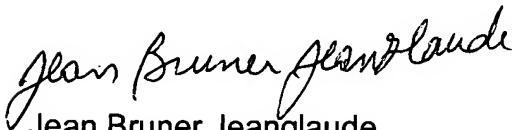
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23. Coakeley et al. (US Application Number 10/117,208) discloses systems and methods for high speed serial encoding and decoding for data and control interfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean Bruner Jeanglaude
Primary Examiner
October 29, 2004